

**Issuance of Historic Based
Ground Water Withdrawal Permits
For
Industrial, Commercial, Public, and
Private Water Supply Systems**

Background

- The Ground Water Withdrawal Regulations (9VAC 25-610-10 *et seq.*) contain due dates for submitting claims of prior use for various types of users.
- The existing Ground Water Management Areas were previously regulated under the Groundwater Act of 1973 and users were reporting withdrawals prior to adoption of the Ground Water Management Act of 1992.
- These reports along with reporting under the Water Withdrawal Reporting Regulations (9VAC 25-200-10 *et seq.*) provided the basis for claims of prior use when applying for historic use based permits.
- Some activities associated with historic based permit issuance are particular to converting pre-existing certificates and permits and would not be required under the current regulations for expansion of the management area.

Application Processing

Application Requirements

- Well Information Worksheet – summary of construction of each well
- Well Construction Forms
- Well Location on USGS Topographic Map
- Time period for claim of prior use
- Historical Withdrawal Amount
- Documentation of Historical Withdrawal Amounts
- Water Use Category
- VDH Waterworks Operation Permit if applicable
- Rights for Savings Achieved Through Water Conservation
- Rights in excess of Historical Use and Savings from Water Conservation
- Rights to Provide Supplemental Water During Drought Conditions
- Applicant Signature
- Application Date
- Fee Submittal (Currently \$1,200)

Application Processing

DEQ Staff Actions

- Verify that the applicant had initiated a withdrawal pursuant to the existing permit or certificate prior to July 1, 1992
- Verify that the applicant was withdrawing water on or about July 1, 1992 or that withdrawals had ceased prior to this date
- Verify that all information required in the application had been submitted
- Determine aquifer of withdrawal
- Determine maximum pump setting depth
- When requested, Rights based on Savings Achieved Through Water Conservation – verify savings and need for additional water
- When requested, Rights in excess of Historical and Conservation Savings – initiate application process for new, non-historic based permit
- When requested, Rights to Provide Supplemental Water During Drought Conditions – verify basis of claim
- Prepare draft permit for applicant
- Issue permit after acceptance of the draft permit

Lessons Learned

Well Construction

- If well construction information was not known the applicant was not required to obtain it until a re-application for a new permit was submitted at the end of the historic based permit term.
- Without known well construction the aquifer of withdrawal could not be identified and the maximum pump setting could not be determined.
- Even though pump setting evaluation is required by the regulation prior to permit issuance, some permits were issued without knowing where the pump intake was.

Lessons Learned

Claim of Prior Use

- Issuance of historic based permits for the highest 12-month withdrawals in a specified time frame resulted in some large permits being issued that did not reflect operations at the time of permit issuance.
- It was reported that some applicants, knowing that regulations were to be adopted, intentionally ran their wells when ground water was not needed for the sole purpose of creating a larger claim of prior use.

Lessons Learned

Area of Impact

- Area of Impact (AOI) analysis was not performed for historic based applications and impacts to model cells and other lawful users was not identified.
- DEQ did not have the opportunity to consider withdrawals whose AOI impacted or created a critical cell (head < 80% of pre pumping level) in the model.
- Historic based permits were exempt from mitigation responsibilities during the term of the permit.
- New permits issued during the term of historic based permits caused some model cells to become critical.
- Re-application for some permits after the historic term, when requesting the same withdrawal amount, resulted in the AOI intersecting a critical cell and prevented the permit from being issued.

Lessons Learned

Water Conservation and Management Plans

- Only required for drought relief based historic permits
- Some non conserving water uses such as once through cooling systems were not identified and would not be supported in a new permit subject to a WCMP. Upgrades could have been planned during the historic permit term.
- Missed opportunity for water conservation to become a cornerstone of comprehensive planning.
- Examples:
 - a) Development of subdivisions with high (300+ gpd/connection) demands much of which is for landscape irrigation.
 - b) Re-zoning of areas for intensive development without consideration if the water resource would be available to support the demands.
 - c) New demands utilizing non-conserving technologies (ex irrigation and industrial processes) and use of high quality aquifers for non-potable demands.

Lessons Learned

Excess and Supplemental Requests

- Regulatory concepts were reduced to check boxes on the application for:
 - (a) rights based on savings achieved through water conservation
 - (b) rights in excess of those established by historical use and savings achieved through water conservation
 - (c) rights to provide supplemental water during drought conditions
- Many applicants saw a way to obtain additional water in their permits and checked “yes” for all three options.
- Unnecessary work was created for staff, explaining to each applicant what these options referred to and what was needed to support their claim.

Discussion Questions

- Should well constructions and pump intake settings continue to be required prior to issuance of an historic based permit?
- Should a claim of prior use be reduced if the claimed amount is less than needed for operations at the time of permit issuance?
- What should be done if newly regulated withdrawals cause additional cells to become critical when their historic based permits are included in the Total Permitted simulation?
- Should permittees with historic based permits have mitigation responsibilities?
- If historic based permits are to have mitigation responsibilities how should the mitigation area be determined?
- Should historic based permits contain Water Conservation and Management Plans?

Groundwater Withdrawal Permitting for Historic Agricultural Users

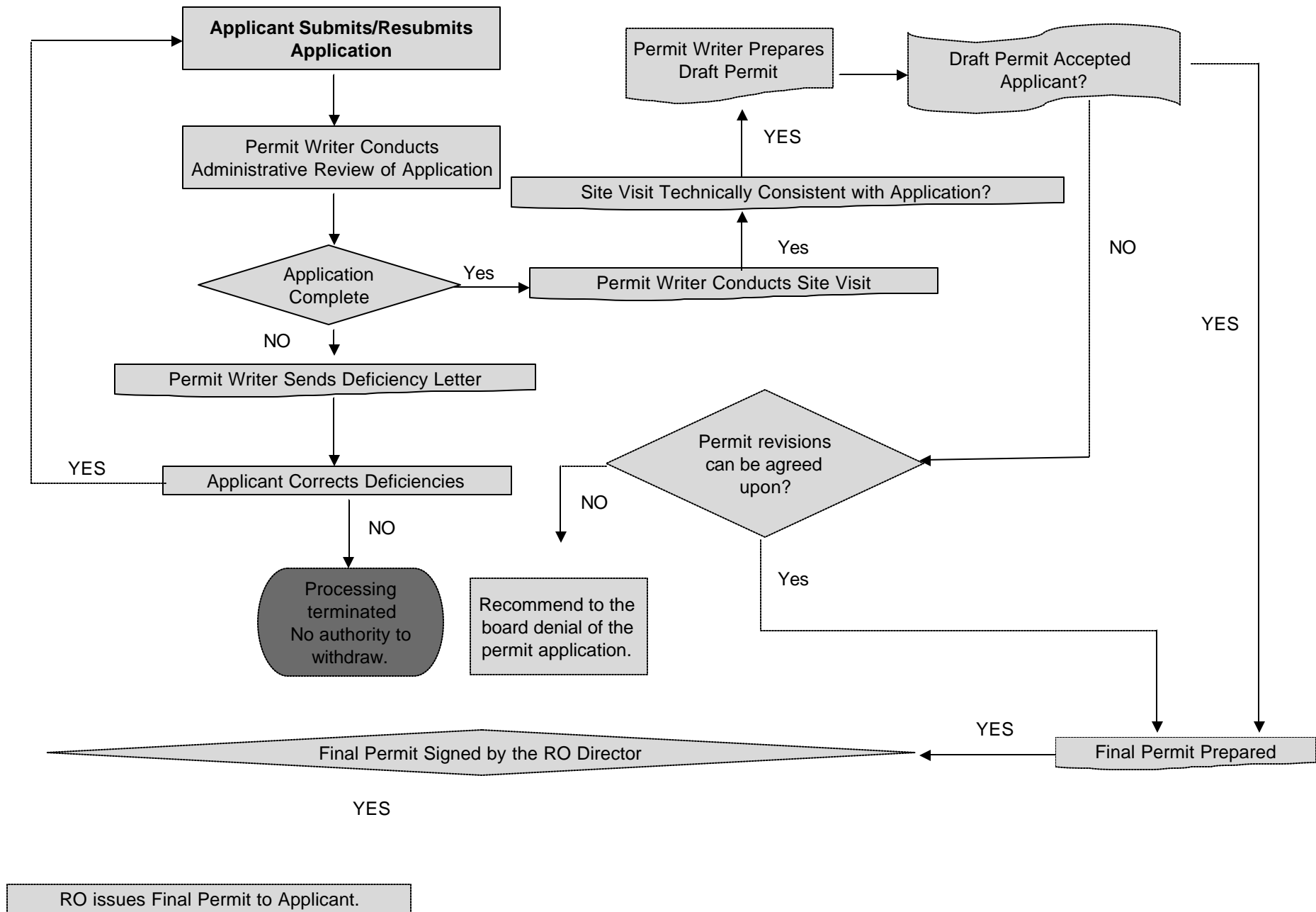
Virginia Department of
Environmental Quality
Water Division



Historic Use Agricultural Permits

- **Statutory Authority**

- §62.1-261. Permits for existing groundwater withdrawals in newly established groundwater management areas
 - Shall file an application for a ground water permit within six months of the effective date of the regulation creating or expanding the ground water management area.



Historic Use Agricultural Permits

- **Application Requirements**

- Well construction documentation
- Map showing location of wells associated with the application
- Withdrawal Reports required by 9VAC25-200-10 et seq. or estimates
- Supporting documentation if applying for withdrawal rights in excess of historic use

- **Permit fees**

- None for agricultural withdrawals

Historic Use Agricultural Permits

- **Application Considerations and Issues**
 - No well construction data
 - No Annual Water Withdrawal Reports
 - Withdrawal estimation methods

Historic Use Agricultural Permits

- **Permit Considerations and Issues**

- Unidentified sources
- Contiguous properties
- Landowner lessee agreements
- Meters
- Well ID Tags
- Quarterly reporting required when no withdrawals occurred
- Well construction
 - Pump intakes below aquifer tops
 - Multi aquifer screening intervals

Historic Use Agricultural Permits

- **How do we improve the process under the next groundwater management area?**
 - Begin effort on obtaining well construction data early
 - Develop an agricultural withdrawal estimation policy
 - What about bulk permit limits?